

CRF Errors Corrected by the STIC Systems Branch

PCT/10

Serial Number: 10/089,2

CRF Processing Date: 4/24/2002
 Edited by: [Signature]
 Verified by: [Signature] (STIC staff)

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: Seq 2 - changed "R" to "n" in 2237 response

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



PCT10

RAW SEQUENCE LISTING

DATE: 04/24/2002

PATENT APPLICATION: US/10/089,211

TIME: 07:51:59

Input Set : N:\Crf3\04172002\J089211.raw

Output Set: N:\CRF3\04242002\J089211.raw

p.6

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1 <110> APPLICANT: Hintz et al.
2 <120> TITLE OF INVENTION: Mannosidases and Methods for using the Same
3 <130> FILE REFERENCE: 62447
4 <140> CURRENT APPLICATION NUMBER: US/10/089,211
5 <141> CURRENT FILING DATE: 2002-03-25
6 <150> PRIOR APPLICATION NUMBER: PCT/US00/27210
7 <151> PRIOR FILING DATE: 2000-10-02
8 <150> PRIOR APPLICATION NUMBER: 60/157,341
9 <151> PRIOR FILING DATE: 1999-10-01
10 <160> NUMBER OF SEQ ID NOS: 19
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/24/2002

TIME: 07:51:59

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Output Set: N:\CRF3\04242002\J089211.raw

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47 gagttcacgc gtttggcgca gttgacaaa caggacaagt actacgatgc aattgcacga 1800
48 atcacaaatg agctcgaaaa gtatcaggat ttgacaaagc ttcccggctt gtggcctctc 1860
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53 ctcaacgata agctctcagg cattgacaag ttccgactcg gagcccttgg tgactctacg 2160
54 tacgagtact taccgaaaga gtatatgttg ctccggcgta acaacgacca gtacctcaac 2220
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64 gcgctctcgc acgaggaatt cgtcacggga aaaatcctca acgaccgact cccgccgggc 2820
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75 <210> SEQ ID NO: 2

76 <211> LENGTH: 2448

77 <212> TYPE: DNA

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79 <220> FEATURE:

80 <221> NAME/KEY: variation

81 <222> LOCATION: (1632)..(1632)

82 <223> OTHER INFORMATION: n = A, C, G, or T

83 <400> SEQUENCE: 2

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87 gacaatagtg cgaccggcag tggggctcct ccgcctgcgt tggtagagcc agaagaatac 240
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/24/2002

TIME: 07:51:59

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Output Set: N:\CRF3\04242002\J089211.raw

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134 20 25 30
135 Leu Gln Ser Trp Val Pro Pro Pro Val Asp His His Asn Pro Pro
136 35 40 45
137 Phe Pro Asp Gln Asn Leu Lys Asp Pro Thr Glu Asn Asp Asn Ser Ala
138 50 55 60
139 Thr Gly Ser Gly Ala Pro Pro Pro Ala Leu Val Glu Pro Glu Glu Thr
140 65 70 75 80
141 Gln Arg Pro Pro Leu Thr Thr Asp Ser Asp Asp Ser Pro Thr Pro Ser
142 85 90 95
143 Lys Glu Arg Leu Asp Thr Pro Ser Asn Val Pro Ser Gln Glu Pro Glu
144 100 105 110

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/24/2002

TIME: 07:51:59

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Output Set: N:\CRF3\04242002\J089211.raw

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149   Glu Arg His Pro Val Ser Pro Glu Ala Leu Ile Lys Leu Pro Thr Gly
150   145                      150                      155                      160
151   Gln Ser Lys Glu Leu Pro Gln Leu Gln Ala Lys Phe Lys Asp Glu Ser
152           165                      170                      175
153   Ser Ser Asp Lys Met Gln Arg Leu Gln Leu Asp Thr Ile Lys Ser
154           180                      185                      190
155   Ala Phe Leu His Ala Trp Asn Gly Thr Lys Ile Ser Ala Met Gly His
156           195                      200                      205
157   Asp Glu Val Arg Pro Leu Arg Gly Gly Phe Lys Asp Thr Phe Asn Gly
158           210                      215                      220
159   Trp Gly Ala Thr Leu Val Asp Ala Leu Asp Thr Leu Trp Ile Met Asp
160   225                      230                      235                      240
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164           260                      265                      270
165   Arg Thr Leu Gly Gly Met Leu Gly Ala Thr Asp Ile Ser Gly His Lys
166           275                      280                      285
167   Thr Asp Ile Leu Leu Glu Lys Ser Val Glu Leu Ala Asp Val Leu Met
168           290                      295                      300
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170   305                      310                      315                      320
171   Ser Pro Glu Thr Ala Ser Glu Phe Arg Arg Gly Asp Phe Lys Ala Val
172           325                      330                      335
173   Leu Ala Glu Leu Gly Ser Leu Ser Leu Glu Phe Thr Arg Leu Ala Gln
174           340                      345                      350
175   Leu Thr Lys Gln Asp Lys Thr Thr Asp Ala Ile Ala Arg Ile Thr Asn
176           355                      360                      365
177   Glu Leu Glu Lys Thr Gln Asp Leu Thr Lys Leu Pro Gly Leu Trp Pro
178           370                      375                      380
179   Leu Asn Leu Asp Ala Ser Gly Cys Arg Arg Val Pro Gly Val Ser Arg
180   385                      390                      395                      400
181   Glu Pro Ala Ala Ala Gly Gln Pro Val Arg Trp Ser Ser Asp Glu Ile
182           405                      410                      415
183   Asn Ser Thr Ser Ser Val Ser Thr Arg Thr Arg Gln Ile His Glu Gly
184           420                      425                      430
185   Gly Glu Pro Val Arg His Asp Asn Asp Ser Phe Glu Thr Gly Phe Pro
186           435                      440                      445
187   Val Ser Val Asp Thr Arg Thr Pro Pro Pro Lys Gln Asp Cys Thr Gly
188           450                      455                      460
189   Gly Leu Asn Asp Gln Leu Ser Gly Ile Asp Lys Phe Gly Leu Gly Ala
190   465                      470                      475                      480
191   Leu Gly Asp Ser Thr Thr Glu Thr Leu Pro Lys Glu Thr Met Leu Leu
192           485                      490                      495
193   Gly Gly Asn Asn Asp Gln Thr Leu Asn Met Thr Gln Lys Ala Met Asp

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/24/2002

TIME: 07:51:59

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Output Set: N:\CRF3\04242002\J089211.raw

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198          530          535          540
199 Asn Pro Pro Gly Arg Thr Thr Phe Ala Thr Glu Gly Thr His Leu Thr
200          545          550          555
201 Cys Phe Ala Gly Gly Met Leu Ala Ile Gly Ala Lys Leu Phe Gly Leu
202          565          570          575
203 Asp Lys Asp Leu Lys Leu Gly Ser Gln Leu Thr Asp Gly Cys Val Trp
204          580          585          590
205 Ala Thr Glu Ala Thr Lys Ser Gly Ile Met Pro Glu Ala Phe Gln Leu
206          595          600          605
207 Val Pro Cys Lys Lys Gly Glu Pro Cys Glu Trp Asp Glu Asp Ala Thr
208          610          615          620
209 Thr Met Ala Met Asp Pro Thr Ala Asp Lys Arg Pro Ile Ser His Asn
210          625          630          635
211 Lys Arg Ser Ala Gly Pro Glu Lys Gly Asn Trp His Val Val Ala Thr
212          645          650          655
213 Ala Glu Ser Ser Ser Pro Gln Glu Asp Lys Thr Gln Lys Ser Thr Thr
214          660          665          670
215 Thr Glu Gly Arg His Thr Gly Thr Thr Gly Ala Gly Ala Leu Ser
216          675          680          685
217 His Glu Glu Phe Val Thr Gly Lys Ile Leu Asn Asp Arg Leu Pro Pro
218          690          695          700
219 Gly Met Thr Gly Ile Ser Ala Arg Gln Thr Leu Leu Arg Pro Glu Ala
220          705          710          715
221 Ile Glu Ser Val Phe Ile Met Phe Arg Leu Thr Gly Asp Pro Ser Trp
222          725          730          735
223 Arg Glu Lys Gly Trp Lys Met Phe Gln Ala Val Asp Lys Ala Thr Lys
224          740          745          750
225 Thr Glu Leu Ala Asn Ser Ala Ile Ser Asp Val Thr Val Asp Asn Pro
226          755          760          765
227 Arg Pro Val Asp Ser Met Glu Ser Phe Trp Leu Ala Glu Thr Leu Lys
228          770          775          780
229 Thr Phe Thr Leu Leu Phe Ser Asp Pro Ser Leu Val Ser Leu Glu Glu
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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/089,211

DATE: 04/24/2002
TIME: 07:52:00

Input Set : N:\Crf3\04172002\J089211.raw
Output Set: N:\CRF3\04242002\J089211.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 1632
Seq#:8; N Pos. 4
Seq#:15; N Pos. 9,18
Seq#:16; N Pos. 4,13,16,22,25

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:15; Line(s) 446
Seq#:16; Line(s) 458



PCT10

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/17/2002

TIME: 11:59:37

Input Set : A:\62447.app

Output Set: N:\CRF3\04172002\J089211.raw

PPS 1 2

3 <110> APPLICANT: Hintz et al.
 5 <120> TITLE OF INVENTION: Mannosidases and Methods for using the Same
 7 <130> FILE REFERENCE: 62447
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/089,211
 C--> 10 <141> CURRENT FILING DATE: 2002-03-25
 12 <150> PRIOR APPLICATION NUMBER: PCT/US00/27210
 13 <151> PRIOR FILING DATE: 2000-10-02
 15 <150> PRIOR APPLICATION NUMBER: 60/157,341
 16 <151> PRIOR FILING DATE: 1999-10-01
 18 <160> NUMBER OF SEQ ID NOS: 19
 20 <170> SOFTWARE: PatentIn version 3.1
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 23 <211> LENGTH: 3328
 24 <212> TYPE: DNA
 25 <213> ORGANISM: Aspergillus nidulans
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 56 aatccccctt tccccgacca gaacctcaaa gatccatacg aaaacgacaa tagtgcgacc 900
 58 ggcagtgggg ctccctccgc tgcgttggta gagccagaag aataccaacg accaccactt 960
 60 tacacagatt cagatgacag cccaactccg tcaaaagaac gcctggacac cccgagcaat 1020
 62 gtcccatctc aggagcctga atttgatgcc gccagacttc agacgggtgc gcagacccaa 1080
 64 aataaacatg aagatgatga ggatattgtc ccaattttct actggaagcc gatgcccgaa 1140
 66 cggcatccag tcagtcggga ggctttgatc aagctgccaa ccgggcaatc aaagggaactc 1200
 68 ccccaactgc aagctaagtt caaggacgag tcgtcctcgg acaagatgca gcggctgcaa 1260
 70 caacttgaca ctatcaagtc ggcgtttcta catgcgtgga acggttacaa gatctctgcc 1320
 72 atgggtcatg atgaggttag acctctgcgc ggtggtttca aggacacatt caatggctgg 1380
 74 ggcgcgaccc ttgtcgacgc cttggatacc ctgtggatca tggatctcaa agaggagttc 1440
 76 tccatggcag tcgactacgt caagaaaatc gattttacca ccagcaccaa gaaagagatt 1500
 78 ccggtctttg aaaccactat tcgctaccta ggcgggatgc tcggggccta tgatatttcg 1560
 80 ggacacaaat acgatatact tttggaaaag tctgttgagc ttgcggatgt cttgatggac 1620

Does Not Comply
Corrected Diskette Needed

do edit

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/17/2002

TIME: 11:59:37

Input Set : A:\62447.app

Output Set: N:\CRF3\04172002\J089211.raw

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82 gccttcgaca caccgaaccg gatgccaacc ctctattata aatggagccc agagtatgct 1680
84 tcagagtttc gccgggggga ctttaaggct gttctcgccg agcttggtc tctctctctc 1740
86 gagttcacgc gtttggcgca gttgaccaa caggacaagt actacgatgc aattgcacga 1800
88 atcacaaatg agctcgaaaa gtatcaggat ttgacaaagc ttcccggctt gtggcctctc 1860
90 aacctggacg catccgggtg caggcgagtt cccggcgctc cgcgagagcc tgctgcggct 1920
92 gggcagccag tcagatggtc ctctgacgag atcaactcga cgagctcggt atcgtatcgt 1980
94 acaagacaaa ttcatgaggg cggagagcct gtccgtcatg acaatgattc gtttgaaacg 2040
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98 ctcaacgatc agctctcagg cattgacaag ttccgactcg gagcccttgg tgactctacg 2160
100 tacgagtact taccgaaaga gtatatgttg ctccggcgta acaacgacca gtacctcaac 2220
102 atgtatcaga aggccatgga cacagtgcga gaatatcttg tttatcagcc aatgctcaag 2280
104 aataatcgcg atgtccgctt cttagcgaca gttagtatga caaagagcct tgatgcaaac 2340
106 cctccggggc gtaccacttt cgcgtacgaa ggcactcacc tcacctgttt tgctgggtgg 2400
108 atgcttgcca ttggcgccaa gttgtttggg cttgataagg atctaaagct gggtagtcaa 2460
110 ctgacggacg gctgtgtctg ggcataatga gccacaaagt ccggaatcat gccggaagca 2520
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114 atggccatgg atccttatgc cgacaagcgg ccaatatcac ataacaaacg ctccgcgggc 2640
116 cctgaaaagg ggaattggca cgtcgtcgcc acagccgaat cgtcttcgcc ccaggaagat 2700
118 aaaacacaga aatcaaccac tactgagggt cgacacaccg gtacaactac cggggcaggc 2760
120 gcgctctcgc acgaggaatt cgtcacggga aaaatcctca acgaccgact cccgcgggc 2820
122 atgacaggga tctcggctcg gcagtacctc cttcgccggg aggcgatcga gtctgtcttc 2880
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128 gataatccac gcccggtgga cagtatggaa tcattctggc ttgcgagac tctgaaatac 3060
130 ttctaccttc ttttcagcga tccaagcctg gtgagccttg acgaatatgt cttgtaagt 3120
132 atgcttgact taatcgactg cttgatgctg acttttccct taggaacacc gaggtcatc 3180
134 cgttcaagcg acccaagtac tgaagtacta attttaaata tcttttagcc tgtatctata 3240
136 catggccgct ccgctgtaga agcattgata ccattaagac agtatcgctg cattcgtgta 3300
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141 <210> SEQ ID NO: 2

142 <211> LENGTH: 2448

143 <212> TYPE: DNA

144 <213> ORGANISM: Aspergillus nidulans

146 <220> FEATURE:

147 <221> NAME/KEY: variation

148 <222> LOCATION: (1632)..(1632)

149 <223> OTHER INFORMATION: (R)_n = A, C, G, or T

152 <400> SEQUENCE: 2

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155 atattccact ttagccgtct cgcagttacg atcagcctgc aatcttgggt acctccgccg 120
157 cccgtcgatc accataatcc ccttttcccc gaccagaacc tcaaagatcc atacgaaaac 180
159 gacaatagtg cgaccggcag tggggctcct ccgcctgcgt tggtagagcc agaagaatac 240
161 caacgaccac cactttacac agattcagat gacagcccaa ctccgtcaaa agaacgcctg 300
163 gacaccccca gcaatgtccc atctcaggag cctgaatttg atgccgccag acttcagacg 360
165 ggtgcgcaga cccaaaataa acatgaagat gatgaggata ttgtcccaat ttctacttgg 420
167 aagccgatgc ccgaacggca tccagtcagt ccggaggctt tgatcaagct gccaacgggg 480
169 caatcaaaag aactccccc actgcaagct aagttcaagg acgagtcgtc ctcggaacaag 540
171 atgcagcggc tgcaacaact tgacactatc aagtcggcgt tcttacatgc gtggaacggg 600
173 tacaagatct ctgccatggg tcatgatgag gttagacctc tgcgcggtgg tttcaaggac 660

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/089,211

DATE: 04/17/2002

TIME: 11:59:37

Input Set : A:\62447.app

Output Set: N:\CRF3\04172002\J089211.raw

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177 ctcaaagagg agttctccat ggcagtcgac tacgtcaaga aaatcgattt taccaccagc 780
179 accaagaaag agattccggt ctttgaaacc actattcgct acctaggcgg gatgctcggg 840
181 gcctatgata ttctgggaca caaatatgat atacttttg aaaagtctgt tgagcttgcg 900
183 gatgtcttga tggacgcctt cgacacaccg aaccggatgc caaccctcta ttataaatgg 960
185 agcccagagt atgcttcaga gtttcgcgg ggggacttta aggctgttct cgccgagctt 1020
187 ggctctctct ctctcgagtt cagcggttt ggcgagttga ccaaacagga caagtactac 1080
189 gatgcaattg cacgaatcac aaatgagtc gaaaagtatc aggatttgac aaagcttccc 1140
191 ggcttggtggc ctctcaacct ggacgcaccc ggggtgcaggc gatttcccgg cgtctcgga 1200
193 gagcctgctg cggctgggca gccagtcaga tggctccttg acgagatcaa ctgcacgagc 1260
195 tcggtatcgt atcgtaacag acaaattcat gagggcggag agcctgtccg tcatgacaat 1320
197 gattcggttg aaacgggttt tcctgtatca gtcgatactc ggaactcctcc cccaaagcaa 1380
199 gattgcaccg gaggcctcaa cgatcagtc tcaggcattg acaagttcgg actcggagcc 1440
201 cttggtgact ctacgtacga gtacttaccg aaagagtata tgttgctcgg cggtaacaac 1500
203 gaccagtacc tcaacatgta tcagaaggcc atggacacag tgcgagaata tcttgtttat 1560
205 cagccaatgc tcaagaataa tcgcgatgc cgttcttag cgacagttag tatgacaaag 1620
W--> 207 agccttgatg cnaaacctcc ggggcgtacc actttcgcgt acgaaggcac tcacctcacc 1680
209 tgttttgctg gtggtatgct tgccattggc gccaaagtgt ttgggcttga taaggatcta 1740
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213 atcatgccgg aagcattcca actggtccct tgtaagaaag gcgagccatg cgaatgggat 1860
215 gaggacgcat actacatggc catggatcct tatgccgaca agcggccaat atcacataac 1920
217 aaacgctccg ccggccctga aaaggggaat tggcacgtcg tcgccacagc cgaatcgtct 1980
219 tcgccccagg aagataaaac acagaaatca accactactg agggtcgaca caccggtaca 2040
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236 <210> SEQ ID NO: 3
237 <211> LENGTH: 815
238 <212> TYPE: PRT
239 <213> ORGANISM: Aspergillus nidulans
241 <400> SEQUENCE: 3
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244 1 5 10 15
247 Phe Val Leu Leu Ile Phe His Phe Ser Arg Leu Ala Val Thr Ile Ser
248 20 25 30
251 Leu Gln Ser Trp Val Pro Pro Pro Pro Val Asp His His Asn Pro Pro
252 35 40 45
255 Phe Pro Asp Gln Asn Leu Lys Asp Pro Thr Glu Asn Asp Asn Ser Ala
256 50 55 60
259 Thr Gly Ser Gly Ala Pro Pro Pro Ala Leu Val Glu Pro Glu Glu Thr
260 65 70 75 80
263 Gln Arg Pro Pro Leu Thr Thr Asp Ser Asp Ser Pro Thr Pro Ser
264 85 90 95
267 Lys Glu Arg Leu Asp Thr Pro Ser Asn Val Pro Ser Gln Glu Pro Glu
268 100 105 110

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RAW SEQUENCE LISTING

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Input Set : A:\62447.app

Output Set: N:\CRF3\04172002\J089211.raw

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271 Phe Asp Ala Ala Arg Leu Gln Thr Gly Ala Gln Thr Gln Asn Lys His
272      115      120      125
275 Glu Asp Asp Glu Asp Ile Val Pro Ile Ser His Trp Lys Pro Met Pro
276      130      135      140
279 Glu Arg His Pro Val Ser Pro Glu Ala Leu Ile Lys Leu Pro Thr Gly
280 145      150      155      160
283 Gln Ser Lys Glu Leu Pro Gln Leu Gln Ala Lys Phe Lys Asp Glu Ser
284      165      170      175
287 Ser Ser Asp Lys Met Gln Arg Leu Gln Gln Leu Asp Thr Ile Lys Ser
288      180      185      190
291 Ala Phe Leu His Ala Trp Asn Gly Thr Lys Ile Ser Ala Met Gly His
292      195      200      205
295 Asp Glu Val Arg Pro Leu Arg Gly Gly Phe Lys Asp Thr Phe Asn Gly
296      210      215      220
299 Trp Gly Ala Thr Leu Val Asp Ala Leu Asp Thr Leu Trp Ile Met Asp
300 225      230      235      240
303 Leu Lys Glu Glu Phe Ser Met Ala Val Asp Thr Val Lys Lys Ile Asp
304      245      250      255
307 Phe Thr Thr Ser Thr Lys Lys Glu Ile Pro Val Phe Glu Thr Thr Ile
308      260      265      270
311 Arg Thr Leu Gly Gly Met Leu Gly Ala Thr Asp Ile Ser Gly His Lys
312      275      280      285
315 Thr Asp Ile Leu Leu Glu Lys Ser Val Glu Leu Ala Asp Val Leu Met
316      290      295      300
319 Asp Ala Phe Asp Thr Pro Asn Arg Met Pro Thr Leu Thr Thr Lys Trp
320 305      310      315      320
323 Ser Pro Glu Thr Ala Ser Glu Phe Arg Arg Gly Asp Phe Lys Ala Val
324      325      330      335
327 Leu Ala Glu Leu Gly Ser Leu Ser Leu Glu Phe Thr Arg Leu Ala Gln
328      340      345      350
331 Leu Thr Lys Gln Asp Lys Thr Thr Asp Ala Ile Ala Arg Ile Thr Asn
332      355      360      365
335 Glu Leu Glu Lys Thr Gln Asp Leu Thr Lys Leu Pro Gly Leu Trp Pro
336      370      375      380
339 Leu Asn Leu Asp Ala Ser Gly Cys Arg Arg Val Pro Gly Val Ser Arg
340 385      390      395      400
343 Glu Pro Ala Ala Ala Gly Gln Pro Val Arg Trp Ser Ser Asp Glu Ile
344      405      410      415
347 Asn Ser Thr Ser Ser Val Ser Thr Arg Thr Arg Gln Ile His Glu Gly
348      420      425      430
351 Gly Glu Pro Val Arg His Asp Asn Asp Ser Phe Glu Thr Gly Phe Pro
352      435      440      445
355 Val Ser Val Asp Thr Arg Thr Pro Pro Pro Lys Gln Asp Cys Thr Gly
356      450      455      460
359 Gly Leu Asn Asp Gln Leu Ser Gly Ile Asp Lys Phe Gly Leu Gly Ala
360 465      470      475      480
363 Leu Gly Asp Ser Thr Thr Glu Thr Leu Pro Lys Glu Thr Met Leu Leu
364      485      490      495
367 Gly Gly Asn Asn Asp Gln Thr Leu Asn Met Thr Gln Lys Ala Met Asp

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RAW SEQUENCE LISTING

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Input Set : A:\62447.app

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368          500          505          510
371 Thr Val Arg Glu Thr Leu Val Thr Gln Pro Met Leu Lys Asn Asn Arg
372          515          520          525
375 Asp Val Arg Phe Leu Ala Thr Val Ser Met Thr Lys Ser Leu Asp Ala
376          530          535          540
379 Asn Pro Pro Gly Arg Thr Thr Phe Ala Thr Glu Gly Thr His Leu Thr
380 545          550          555          560
383 Cys Phe Ala Gly Gly Met Leu Ala Ile Gly Ala Lys Leu Phe Gly Leu
384          565          570          575
387 Asp Lys Asp Leu Lys Leu Gly Ser Gln Leu Thr Asp Gly Cys Val Trp
388          580          585          590
391 Ala Thr Glu Ala Thr Lys Ser Gly Ile Met Pro Glu Ala Phe Gln Leu
392          595          600          605
395 Val Pro Cys Lys Lys Gly Glu Pro Cys Glu Trp Asp Glu Asp Ala Thr
396          610          615          620
399 Thr Met Ala Met Asp Pro Thr Ala Asp Lys Arg Pro Ile Ser His Asn
400 625          630          635          640
403 Lys Arg Ser Ala Gly Pro Glu Lys Gly Asn Trp His Val Val Ala Thr
404          645          650          655
407 Ala Glu Ser Ser Ser Pro Gln Glu Asp Lys Thr Gln Lys Ser Thr Thr
408          660          665          670
411 Thr Glu Gly Arg His Thr Gly Thr Thr Thr Gly Ala Gly Ala Leu Ser
412          675          680          685
415 His Glu Glu Phe Val Thr Gly Lys Ile Leu Asn Asp Arg Leu Pro Pro
416          690          695          700
419 Gly Met Thr Gly Ile Ser Ala Arg Gln Thr Leu Leu Arg Pro Glu Ala
420 705          710          715          720
423 Ile Glu Ser Val Phe Ile Met Phe Arg Leu Thr Gly Asp Pro Ser Trp
424          725          730          735
427 Arg Glu Lys Gly Trp Lys Met Phe Gln Ala Val Asp Lys Ala Thr Lys
428          740          745          750
431 Thr Glu Leu Ala Asn Ser Ala Ile Ser Asp Val Thr Val Asp Asn Pro
432          755          760          765
435 Arg Pro Val Asp Ser Met Glu Ser Phe Trp Leu Ala Glu Thr Leu Lys
436          770          775          780
439 Thr Phe Thr Leu Leu Phe Ser Asp Pro Ser Leu Val Ser Leu Glu Glu
440 785          790          795          800
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444          805          810          815
447 <210> SEQ ID NO: 4
448 <211> LENGTH: 2177
449 <212> TYPE: DNA
450 <213> ORGANISM: Aspergillus nidulans
452 <400> SEQUENCE: 4
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457 atgcatggcc catcagcctg aagcacttcc ccaagcaaag tcgagactcg gacaccgatg 180
459 atatccctgc tgtccctgac tgatgcatag tgcatgcccc tgcgctggct ccccttttca 240
461 ctccgctggt tctccagtct ccaactccca ccaatgatgt ctgccccgc ccgcccctcca 300

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Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence.

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/089,211

DATE: 04/17/2002

TIME: 11:59:38

Input Set : A:\62447.app

Output Set: N:\CRF3\04172002\J089211.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:810 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:825 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
L:831 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16